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Information is provided relative to the design, selection, and purchase of locker equipment for athletic and physical education use. Some suggestions offered are for both specific applications, and some are general to any locker dressing room. Among the topics discussed are construction and joining of lockers, ventilation and drying, administrative problems, and security. (FS)

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ATHLETIC LOCKERS FOR SCHOOLS AND COLLEGES

their design – selection – and purchase

by
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Locker Room Equipment Consultant
Industry Member–Construction Specifications Institute

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A Booklet for

Athletic Directors
Coaches
Department Supervisors
Physical Education Instructors
and other Administrators

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FOREWORD

The purpose of this booklet is to make available to school and college administrators, information relative to the selection, design and purchase of varsity and physical education lockers.

Some of the suggestions included have limited application, others are generally suited to any locker dressing room.

The information contained herein is based upon this writer's many years of experience in consulting directly with school administrators at all levels.

It is the hope of the author that this effort will provide assistance in making decisions for the selection and purchase of athletic and physical education lockers.

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THE BASIC LOCKER UNIT

In the past and unfortunately, even into the present day, locker equipment for varsity and physical education use has been a neglected subject of planning. The old fashioned, fully enclosed, "*corridor type*" locker with a few louvres pressed into the door was, and is still being considered, adequate for athletic department use. Such lockers as these, when used in the athletic locker-dressing room, are as outdated as the "*pot belly*" stove once used to heat the one-room school. These relics of the past still find their way into otherwise modern and space-age school and college athletic departments.

Furthermore, such "*corridor type*" locker equipment with inadequate provision for ventilation is often constructed of very light gauge material thus decreasing its service life. Such enclosed lockers for athletic use have little to recommend them ***other than price*** which should be the ***last*** consideration in making a selection of such equipment.

Aside from basic locker construction (gauges of steel and joining methods), we must consider locker dimensions and choose a unit with adequate space for its intended use. Obviously, a "*football varsity locker*" must be larger than physical education, dressing, or street clothes locker.

Determine the "*function*" of the locker. Then choose the size accordingly. This writer has seen situations, in new construction, where the room size is first established and then a locker size is chosen to fit the room with no thought given to the lockers intended use. This is poor thinking and bad planning.

We must remember that once the "*die is cast,*" the room dimensions determined, we are forced to live with these decisions for many years. Another thought that might be mentioned here is the consideration of possible expansion as school population increases.

Room size and layout is properly the business of the architect or planner and is only mentioned here because of its direct bearing on individual locker size allowable.

Locker-dressing room administration can be made more efficient through sound thinking and careful planning, and it is in this area that the voice of athletic administrators and their staff should be heard. Their experience and understanding of the problems encountered in locker rooms is invaluable at the planning level. Their advice and suggestions should be earnestly sought.

ATHLETIC LOCKER CONSTRUCTION

Proper athletic locker construction should provide:

1. Sound, heavy gauge materials for components, coupled with good joining methods to enhance locker-service life.
2. Adequate ventilation of locker contents through sufficient "*open area*" in locker panels (door and sides) to assure free air travel into and out of the locker.
3. A locker with sufficient open area that allows light to enter discourages certain odor-causing bacteria growth that thrive in dark damp places. Also a locker that permits light to enter can help to prevent mildew.
4. Another advantage might be mentioned here in regard to "*open area*". If such "*open area*" is large enough, proper inspection of locker contents can be made quickly by athletic administrators.

These details can only be provided by the locker manufacturer, and it is well to scan a producer's specifications for these features.

MATERIALS

In 1. above we mentioned "*sound, heavy gauge materials.*" This writer realizes that some school or athletic administrators may not be familiar with metal thickness designations. For this reason a table of metal gauge thickness will be shown on page 24 of this booklet for reference purposes.

Steel gauges are designated by number with the smaller number indicating the heavier material. Thus, 16 gauge sheet steel is 8 gauges heavier than 24 gauge sheet steel.

Other material specifications often shown in locker manufacturer's literature relate to the raw steel finishing process. We are not speaking here of the painting or final enameling but of the surface finish of the raw material as furnished the manufacturer from the steel rolling mills.

DEFINITION OF TERMS

Cold rolled – This represents a raw steel sheet that has been subjected to a cold rolling process which produces a very smooth and shiny or slick appearance. This type of sheet is often used for automobile bodies and will take a high gloss enamel finish.

Stretcher level steel sheets – This is a process performed by the steel rolling mills. The sheet is subjected to a stretching process which insures sheet flatness and stability.

Hot rolled-single pickled – This material is rolled hot at the steel mill, and after this process, a film of scale adheres lightly to the metal. The sheet is then run through a chemical *"bath"* that removes the scale to insure good paint adherence.

In addition to removing scale, the *"pickling"* or chemical *"bath"* has a tendency toward a minute pitting of the sheet surface which forms a slightly better paint or enamel bond.

Hot rolled – If the designation in the specifications calls for only *"hot rolled"* with no qualifying words, we may assume such material still has scale adhering to its surface. This type of material could present problems in that if the scale loosens after painting, the paint or enamel will peel.

Galvannealed – A sheet of steel that has received a galvanized coating which is heated before the zinc solidifies, thus producing a zinc-iron alloy surface enhancing its rust and corrosion resistance.

This surface finish, unlike ordinary galvanized surfaces, provides good paint adhering qualities.

This information is included here to assist a prospective purchaser of lockers in evaluating a manufacturer's specifications in commercial or technical terms. Rarely are these terms explained in formal specifications.

JOINING METHODS

Once the component parts of a locker are cut to size, formed, and punched, they must be assembled into the completed unit. Here the purchaser has the choice between a "knocked-down, do-it-yourself" kit of parts requiring assembly at the school or college or a complete, factory assembled locker that requires only unpacking, moving in place, and fastening to walls, floors or concrete bases.

Several factors enter into the choice of the "knocked-down" unit, or the all welded, factory assembled locker.

There are really only two advantages of purchasing a "knocked-down" locker.

1. Locker cost

2. Reduced transportation charges

This saving is often overtaken by high cost assembly later at the job site coupled with higher maintenance costs in the future.

Other problems frequently experienced when assembling lockers on the job are 1) misaligned bolt holes, 2) missing parts or fasteners- all of which slows up the installation.

On the other hand, the all-welded, factory assembled locker does cost more to ship, but no assembly labor at the school is required. Such factory assembly is usually complete in every detail, even including the attachment of locker identification number plates. Furthermore, all-welded construction is a far stronger and more tamper proof joining method.

WELDING

Such welding may be of two types:

1. Electric Spot Welding
2. Electric Arc Welding

There is a general agreement that the *"arc welded"* process is the more reliable of the two types. A properly made *"arc weld"* is said to produce a joint stronger than the parent metal.

Electric *"spot welding"*, on the other hand, is a faster and less costly process, but not as strong. Thus, joining methods are reflected in the overall cost of the locker.

Generally, the locker with the highest price tag is the best, as is true of most other products.

ADEQUATE VENTILATION

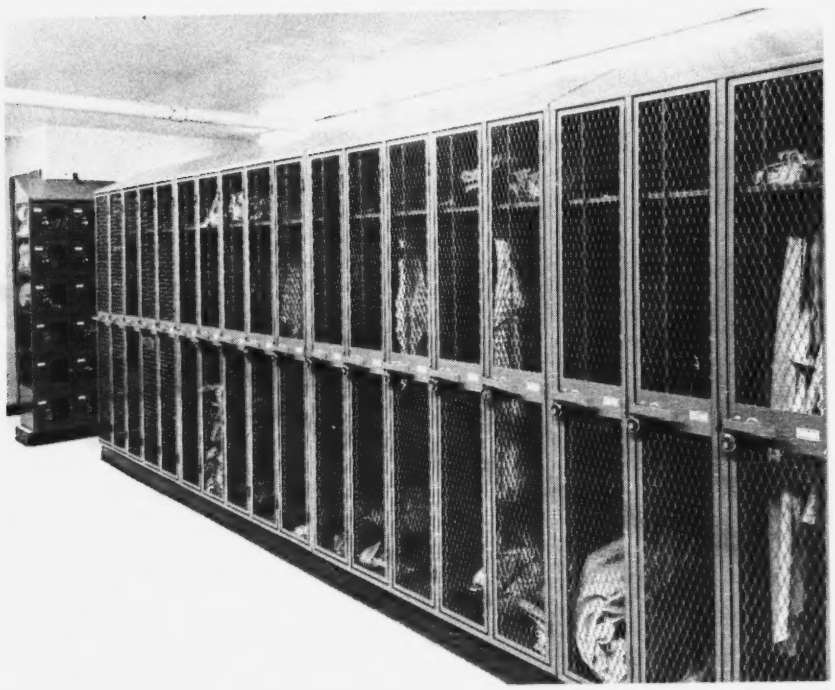
Locker Room Odor

This is a subject that should be perfectly obvious to any athletic or physical education administrator; in fact, to any person who ever entered a locker-dressing room.

Odors emanating from some locker rooms render them unfit for human habitation. Fortunately for the student, his contact with this obnoxious condition is relatively brief, but the athletic staff lives with it all day long. With all the effort going into planning healthful

and pleasant surroundings in educational institutions, why they allow locker-dressing rooms to be the unpleasant places they are in some instances is beyond this writer.

This booklet deals largely with the basic *"athletic locker unit"*. We will discuss the way the locker itself can serve to reduce locker-dressing room odors.



This illustrates a combination varsity and physical education locker room using "mesh type" athletic lockers.

Here the writer makes a flat assertion. Use *"mesh type"* side and door panels, and if lockers are installed on islands (away from walls) consider also a *"mesh type"* back.

To back this assertion, let me refer to a booklet distributed by leading athletic equipment manufacturers entitled *"Care of Athletic Equipment."*

On page 7 of this booklet appears this statement: *"Construct all lockers of open mesh, wire screening."*

Under a list of *"Don'ts"* on the same page, we quote: *"Don't pack athletic wear in a closed locker unless thoroughly dry."* My own

qualification of the last statement is this -- drying of athletic wear is of course vital to the life of the garment. ***But drying alone does not prevent odors.*** Dark, damp places are not condusive to healthful conditions and this also recommends the *"open mesh"* locker that light can enter.

We will mention here that other mechanical conditions must accompany the mesh-type locker, such as:

Proper air changes (C.F.M.) from locker-dressing room ventilating and exhaust systems must be considered. These problems are the responsibility of the heating and ventilating engineer that designs the system.

There are units available from manufacturers for air purifying and deodorizing; there are both portable and *"built-in"* types that might be considered.

LOCKER ROOM DRYING

Another feature of the fully ventilated, *"mesh type"* locker is its ability to enhance the drying of stored clothing and equipment.

We mentioned previously that in choosing athletic lockers, we must select not only the proper type of construction, but also a size that will be functional.

Each locker unit should be large enough to not only accommodate the stored equipment but also to allow a ***plus factor*** for a separation of garments to insure proper airing and drying.

THE DRYING ROOM

We might ask, *"Is the drying feature of a mesh locker important? Why not a drying room?*

This writer has no quarrel with the advocate of *"drying rooms"*. If well planned and well administered, they serve a useful purpose, but they, like all other solutions, create problems of their own. Some of these problems that have come to my attention from athletic officials using *"drying room"* systems follow:

First, drying rooms cost money and require floor space which could be used for other purposes. In some cases special superheating devices are employed in such rooms, and here we quote again from the booklet *"Care of Athletic Equipment,"* page 7, *"Avoid ex-*

cessive *heat in washing or drying garments.*" Page 2, under Leather Goods, "*Don't use excessive artificial or forced heating.*" Natural drying at normal room temperature is recommended to prolong equipment life.

ADMINISTRATIVE PROBLEMS CREATED BY DRYING ROOMS

One of the difficulties that is inherent in the "*drying room system*" is the placing of responsibility for the safe keeping of school property. Let us consider the game of football with its high cost uniforms and protective devices. Each player may be assigned personal equipment costing anywhere from $120.00 to $175.00 - not an insignificant item when we consider squads of as many as fifty or more.

Some schools require that the parent or guardian sign a statement of financial responsibility for the equipment assigned to a student.

If, after practice sessions, a player is required to turn over his uniform to a "*drying room*" attendant or, as is sometimes the case, the player himself deposits his personal gear in the drying room, he, the player, thus relinquishes the possession of articles charged to him.

This writer has often encountered drying rooms entirely unattended and often all too accessible to unauthorized persons. If theft or damage occurs to equipment when a "*drying room*" system is used, assessing responsibility becomes a difficult administrative problem. Quite often a player's equipment is out of his possession for the greater part of a 24-hour period.

One quite prominent coach and athletic official had this comment to make in relation to drying rooms: "*We have recently installed 'mesh type' athletic lockers and our locker room has become one huge drying room. When we eliminated our old drying room system, we also solved our 'traffic pile up' when practice sessions were over, allowing us twenty minutes a day more time on the field.*"

If a "*mesh type*", fully ventilated locker of adequate size is provided with a standardized hanging procedure, drying can be accomplished and each student will secure his assigned equipment under ***his*** lock and key. Thus a reasonable amount of responsibility can be placed.

VISUAL INSPECTION OF LOCKER CONTENTS

Visibility

What does a student keep in his locker? Is all authorized equipment in the unit? Are there unauthorized articles stored in it? Are the various pieces of equipment or clothing being properly taken care of? Are there some pieces in need of repair or cleaning?

Some of these questions can be answered if the locker door has sufficient *"open area"* to allow a quick, visual inspection. Running a *"tight ship"* pays dividends, not only encouraging personal neatness but for security as well.

The foregoing was presented not in the spirit of debate, but merely to point up some of the problems administrators might encounter and have encountered in certain educational institutions.

COLOR IN THE LOCKER ROOM

Locker-dressing rooms of the past and even some of those more recent ones were and are dark, damp, dismal places.

Lockers finished in bright, cheerful, baked enamel colors are now available from most locker manufacturers. The choices offered in standard colors blend well with most any decor. It is high time for the familiar *"Army olive green"* light-absorbing locker color to be replaced by something more cheerful.

FINISHES

Locker manufacturers usually specify their finishing method. The specification might include the following information:

That first, the locker is chemically cleaned to remove all grease and foreign matter, then given a ground coat of a certain type of primer, often an "epoxy" material, then baked at a certain temperature. Following the prime coat, a finish coat of enamel is applied and then baked out.

Some specifications indicate the thickness of the enamel as being so many mils thick. (one *"mil"* = 1/1000 of an inch.)

All the information given above regarding finishing specifications represent quality. This writer realizes there are not many paint chemists among school administrators, but you can usually be assured if a locker manufacturer mentions them - ***it is probably good.***

LATCHING DEVICES

One other quality feature might be included here as it pertains to finishing and mechanical considerations. This is the locker door latching mechanism. Quality lockers usually provide ***3 point latching,*** meaning the door is, when closed, latched at the handle or door center, at the locker top and locker bottom. The method employed is usually a handle controlled eccentric operating the latching rods for locker top and bottom with lug latching at the handle point. Latching rods should preferably be made of solid steel rod of at least 3/8" diameter. At the top and bottom of the door, rod guides should be provided to ***"steer"*** the rod to full latch position.

Latching mechanisms usually lose their finish first. For this reason some locker manufacturers cadmium- or zinc-plate such working parts before painting, thus giving double protection against rust and corrosion.

In conclusion, it may be well to remember - no locker finish can be guaranteed against scratching or marring. You may, however, expect a guarantee against the peeling of such enamel finishes and very rarely will such finishes *"powder"* off.

A word of caution might be inserted here regarding the care of locker finishes. This writer inspected a new locker installation where the paint was beginning to peel, leaving the metal bare in spots.

Upon investigation it was found that following the installation of the lockers, the general contractor was required to apply a chemical to the concrete floor for hardening purposes. Most such hardening solutions are highly caustic. The fumes from this chemical affected all metal objects in the room.

Floor cleaning compounds are also often injurious to locker finishes. Check with the supplier before using such material.

LOCKER CONTENTS SECURITY

It must be remembered that a locker can offer only *"moderate"* security. ***It is not a bank "vault."*** With the proper combination of sound locker design and adequate locker room supervision, locker rooms can be made reasonably safe from pilfering.

Locking Devices

In our modern schools and colleges the key operated lock has been replaced by the combination *"key"* controlled type, the *"key"* being in the possession of the locker-dressing room official.

There are two types in general use:

1. The combination Key controlled *padlock*.
2. The *built-in* combination Key controlled lock.

The Built-in Lock

At first glance this might seem to be the answer to all locker security problems. It has one advantage -- it is bolted or riveted to the locker, preventing the mixing of locks by students as in the case of the detachable padlock.

There are, however, several disadvantages of an economic, mechanical, and security nature.

Generally speaking, built-in combination locks, when installed, cost about twice as much as a good combination padlock.

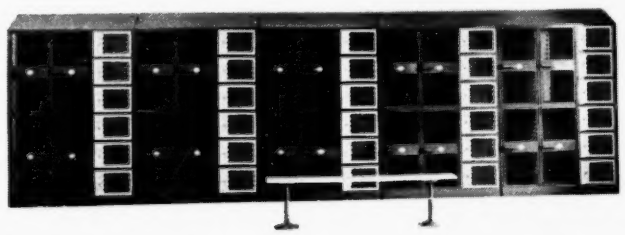
With built-in locks, mechanical failures seem to be more frequent and maintenance costs are higher.

If the more convenient *"spring bolt"* type of built-in lock is used, a sharp blow on the locker door at or near the lock point can possibly spring the lock. The *"dead bolt"* type can be used but their inconvenience makes them undesirable.

Built-in Locks in Physical Education Locker Rooms

The modern concept of physical education lockers is the modular unit, consisting of one *"dressing"* or *"street clothes locker"* to possibly 6 box locker compartments. Many other ratios are available to accommodate any number of *"gym"* or physical education classes.

One manufacturer offers ratio combinations of 3 to 1 through 18 to 1.



Photograph illustrates one possible combination of dressing lockers and box gym lockers.

Now let us consider the built-in combination lock in connection with the physical education locker-dressing room.

The physical education instructor assigns a permanent box compartment to each student in which he stores his gym clothes and shoes.

Let us assume that in a particular school or college we have a 6 to 1 ratio of boxes to *"dressing lockers."* Both box lockers and dressing lockers are equipped with built-in combination locks.

Now John Doe, a student, has a first period gym class. He has been assigned a box gym locker. He manipulates his lock combination, removes his gym clothes, and then manipulates the combination on the dressing locker immediately adjoining his box locker column. He hangs his street clothes in the dressing locker and locks the door. Whether he locks his gym box locker at this time is relatively unimportant from a security standpoint, because at this point it should be empty. The student now enters the gymnasium or goes out to the playing field.

Often such locker rooms are left unattended and unlocked.

Now let us suppose that a student from the fourth period gym class, who uses the same dressing locker as John Doe, is a thief. He knows the dressing locker combination -- he must, because he shares it in common with five others. He can enter this locker and help himself to John Doe's property.

Thus built-in locks can produce security problems.

Another problem with built-in combination locks in physical education locker rooms -- and this one is of pure inconvenience to the student -- is that the student must memorize three lock combinations -- his corridor locker, his box gym locker and his dressing locker.

The Padlock

Now on the other hand, when the padlock is used, only one lock per student is required -- he merely transfers ***his*** padlock to the dressing locker thus securing it with a lock, the combination of which, is known only to him.

Let us now consider the lock-cost factor. A very good combination key controlled padlock may be had for about $1.60, whereas a built-in lock installed may cost $3.00 each, making an overall per student cost cost of $3.50 for locking devices -- 1 lock for the box locker, and 1/6 of $3.00 for the dressing locker, or $1.90 more per student for built-in locks vs. padlocks.

Some schools charge a yearly rental fee for the use of padlocks. This fee usually covers any lock replacement and sometimes leaves a modest amount in the athletic fund.

This writer has no vested interest in the manufacture or sale of locks but merely wishes to pass on this information to those whose responsibility it is to administrate locker-dressing rooms.

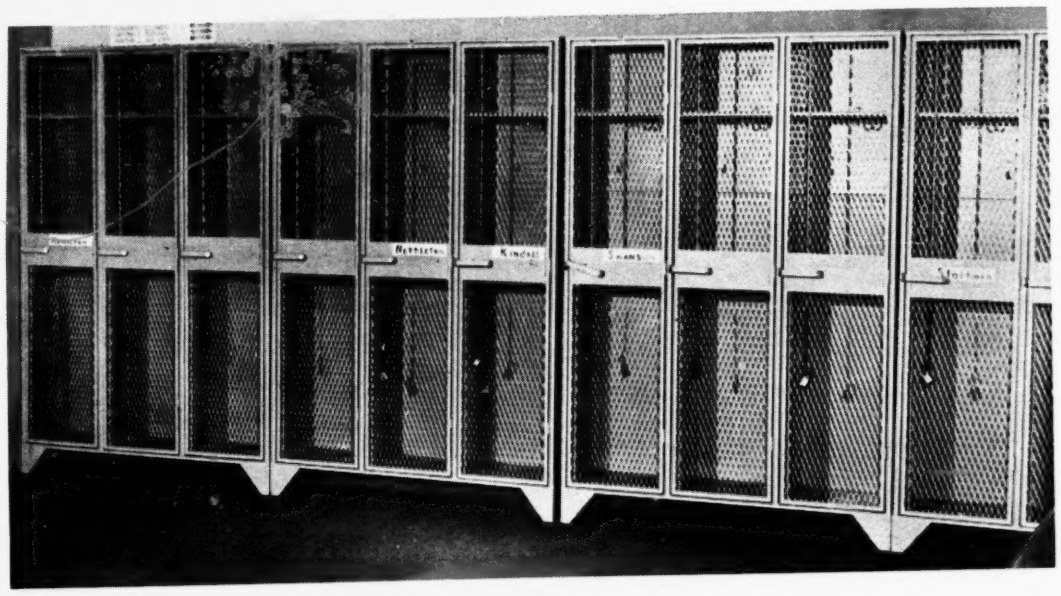
CUSTOMIZING STANDARD LOCKERS

Extras at Additional Cost

Most locker manufacturers offer certain *"extras"* or accessories with which your lockers can be equipped at *"extra"* cost.

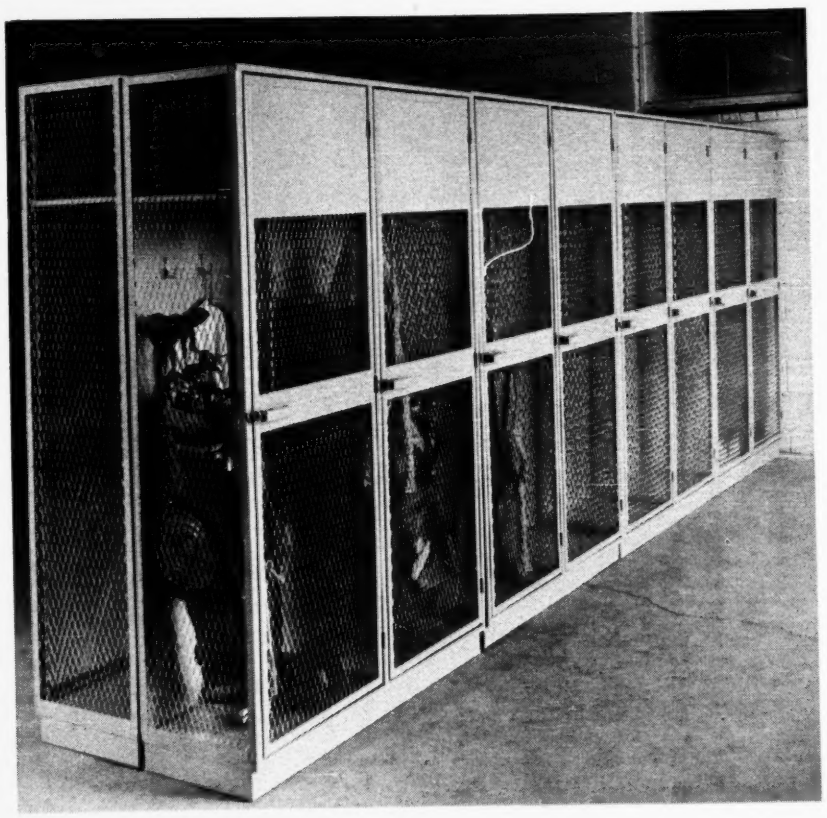
Let us first consider locker bases -- or *"what the lockers stand on."*

1. Usually a *"gusset"* type or *"angle"* leg can be furnished at negligible cost. The disadvantage of such legs is a matter of cleanliness -- dust and debris can gather under the lockers.



This installation provides gusset or angle legs.

2. Some manufacturers can furnish "*enclosed*" metal bases -- slightly inset for "*toe*" room. This provides a neater installation at a modest additional cost.

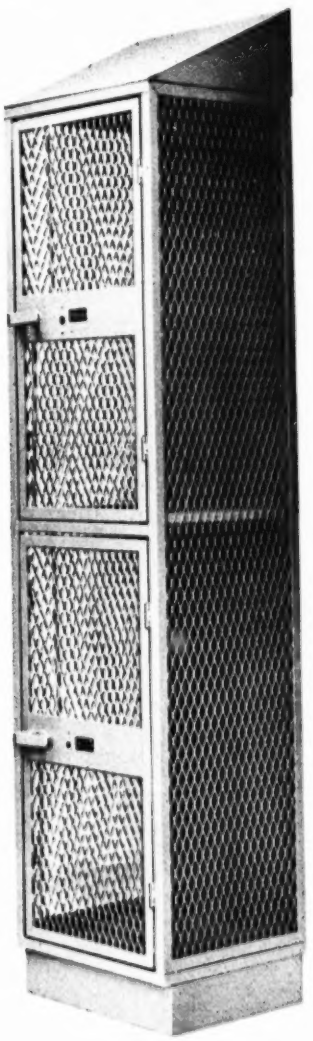


This installation illustrates enclosed metal base for subject number 2 above.

3. In modern locker installations a concrete base or curb is provided by the contractor or school upon which the lockers stand. Often such curbs are faced with a glazed cove tile with rounded corners to enhance cleaning. When such curbs are used no extra charges are made by locker manufacturers -- and their engineering department provides the contractor or school with detailed blueprints specifying how the bases shall be made to accommodate their locker. Follow the locker manufacturer's instructions in such cases.

Sloping Tops at Extra Cost

Most if not all locker manufacturers can furnish sloping tops or sloping hoods for lockers. Such slope tops should be inclined at least 25 to 30 degrees to be effective.



Double tier locker with sloping top.

Flat locker tops can become a collector of dirt, books or other articles making for unsightly appearance.

In lieu of the sloping top, furring down the ceiling to locker height might solve this problem, but would be more costly than sloping tops.

Number Plates

Locker manufacturers will furnish number identification plates with the numbering system you desire at a slight additional cost.

A straight numerical sequence may be had or a letter-number system can be employed. Such plates usually are made of aluminum with impressed numbers 3/8" to 1/2" high and black filled for ease in reading.

The letter-number system is often used as follows: all numbers prefixed or suffixed with letter "*A*" designates the first period class. Those with letter "*B*" the second period class, etc. Usually no extra charge is made for adding the letter to the plate.

Number plates are riveted to the locker door plate near the handle.

Special Colors

Most manufacturers will furnish "*special*" or off standard colors at higher cost. It becomes incumbent upon those ordering lockers to furnish a large color sample. Never designate a "*special*" color by name and expect a locker manufacturer to produce it -- furnish a sample.

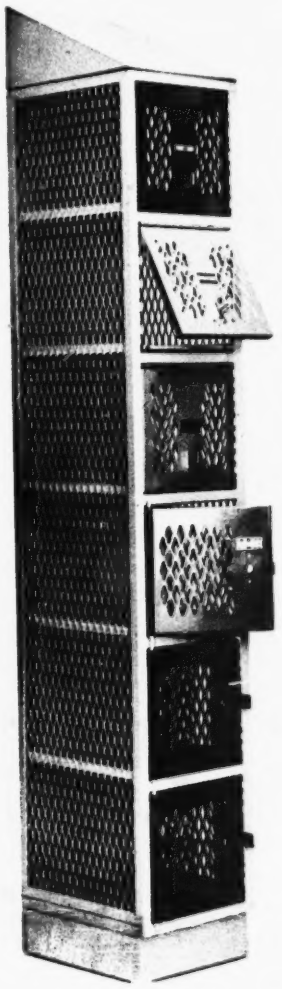
Also bear in mind no locker manufacturer will guarantee a "*perfect match*" of such "*special*" color samples. Color match is often more a matter of opinion than scientific certainty. A reasonable match is all that can be expected.

Usually locker makers provide sufficient standard colors to meet the most discriminating tastes, and in most cases it is wise to choose a "*standard*" color for reasons of cost -- prompt delivery -- and ultimate satisfaction.

Before we leave the subject of color, some manufacturers will furnish lockers with color-gym-class designation. Thus the first period class uses the blue box lockers, the second period the tan lockers, etc.

Box Locker Door Hinging

A few manufacturers offer gym box lockers with a choice of two types of door hinging; one with the conventional side hinge with which we are all familiar, another with top hinging -- having the advantage of *"drop-close"* or *"gravity"* closing feature.



Six tier box locker column illustrating top hinged door and side hinged door.

The top hinged door assures that all box locker doors will at least be closed if not latched, but this is the only feature that recommends it. The *"top"* hinged door is largely a *"gimmick"* that might create more problems than it solves.

1. The possibility of the door *"falling"* on a student's fingers is prevalent, creating a safety hazard.
2. Removal of locker contents becomes a two-handed operation -- one hand holding the door open, the other hand removing the box locker contents.
3. Box lockers near the bottom of a tier are often inconvenient to use.

When making a choice of this kind, weigh all factors involved -- not the feature that only appears to solve a problem.

One locker manufacturer who furnishes both types of box locker door hinging finds conventional side hinging is requested on over 90% of his orders.

REAR ACCESS DOORS

Some schools and colleges provide a clean towel service and/or laundry service for students. In such cases, large doors can be provided in the backs of locker units. Each pair of doors gives access to approximately 30 box lockers. Thus a locker room attendant can *"towel"* and replace laundered apparel in each student's compartment without opening each locker individually. Such doors can be of mesh properly braced or of solid sheet metal. In all cases such rear access doors are provided with a key lock handle similar to that used on automobiles.

"Rear access doors" - each pair of doors opens 30 box gym lockers.

"Rear access door" - shown open.

In some cases, such rear doors are made inaccessible to students by locker arrangement, but in all cases such doors remain locked except when being serviced by the attendant.

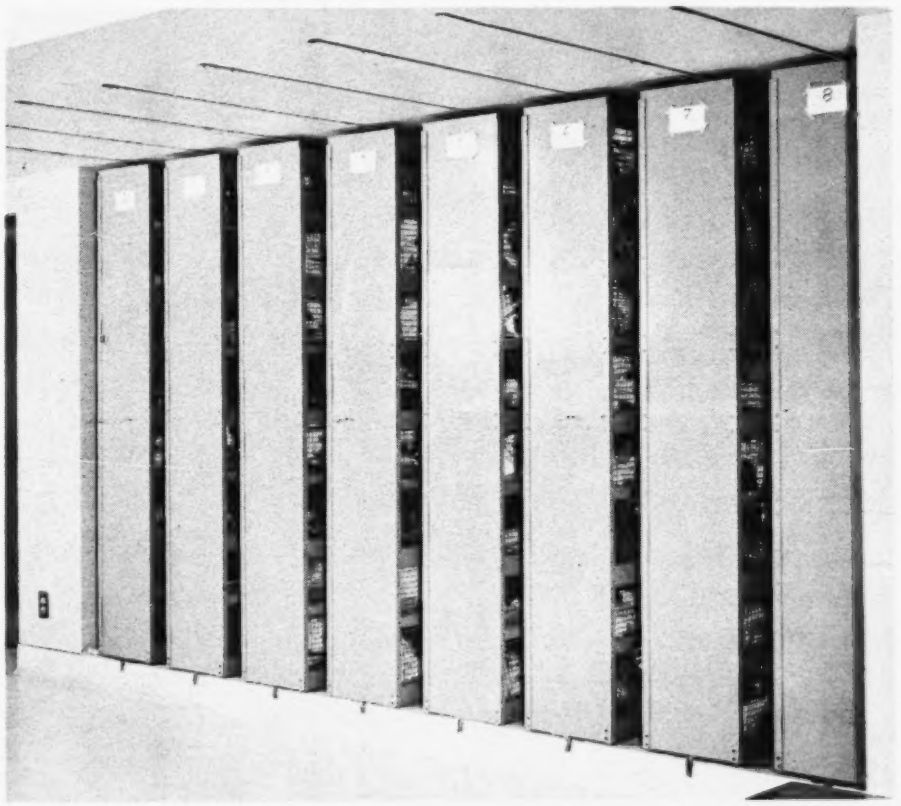
HIGHLY SPECIALIZED ACCESSORIES

Lockers on Wheels

Some locker rooms are designed for multi-purpose use. One such room functioned as a physical education locker-dressing room, wrestling and weight lifting practice area. This has become something of a trend in the planning of educational buildings and facilities, such as combination lunch and assembly rooms.

Obviously when a locker dressing room is intended for such use it must be planned accordingly. For one thing it usually means that dressing lockers be installed on the room's perimeter -- or an along-the-wall arrangement. This leaves the center room area free for other activities.

Our subject here is ***"Lockers on Wheels."*** Therefore we present one solution that the writer inspected some years ago that made use of the movable or rolling principle for physical education lockers.



"Lockers on wheels" - all units recessed in storage area.

The locker-dressing room proper was about square in shape. Full length dressing lockers were arranged around three walls of this room. One corner was occupied by a small glassed-in cubicle that served as an instructor-coach's office. An official seated at his desk in this little room had an obstructed view of the entire locker-dressing room. *"Movable"* locker room benches were arranged in the center area of the floor.

At one end of this room was an extension of the main dressing-practice area that became a *"garage"* for the gym box lockers. Each section consisted of 120 box compartments mounted back to back with 60 openings or boxes per side, the four sections thus providing for 480 physical education students.

"Lockers on wheels" - illustrates basket racks pulled out for physical education students' use.

Each of these sections served one class or physical education group. The sections were approximately 72" high, exclusive of the sloping tops provided, and were about 10 feet long.

Ceiling-hung inverted *"T"* trolley tracks that began near the back wall of the box locker *"garage"* and extended into the locker room about 12-1/2 feet were provided for each section of box lockers.

Attached to each sloping top were steel bar brackets forming a yoke to which were fastened trolley suspension wheels that engaged and rolled upon the ceiling suspended *"T"* track. The ceiling track carried the load.

On the floor of the locker *"garage"* and extending into the locker dressing rooms the same distance as the overhead *"ceiling assembly"* was a floor *"slot"* or track. On the base of each box locker section and extending its full length was a flat steel bar to which small yokes were welded to carry the guide or *"idler"* wheels or rollers. The purpose of the floor guide was merely to assure a smooth rolling action and to prevent any sway in the locker section while being moved into and out of the *"garage."*

A bar or *"bale"* handle was provided on each locker section to pull or push the locker section along the track.

Each box compartment had its own padlock and in addition, the entire "*garage*" opening was provided with its own door with a keyed lock. Thus when the gym lockers were not in use, the "*garage*" door was closed and locked, providing an extra measure of security.

The system worked as follows: when the first physical education class arrived the assigned sections would be rolled out into the locker dressing room and made accessible. When that class was over the locker section would be rolled back into the garage and section number two would be taken out, etc.

Thus only those box lockers that were in use would be occupying space in the center floor area at any given time.

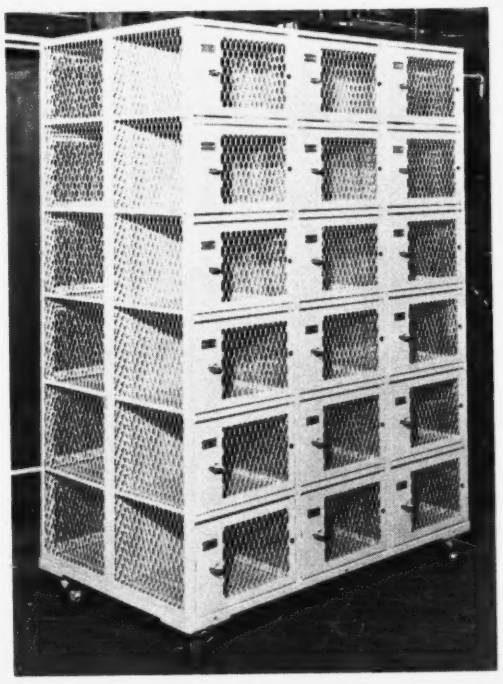
When the room was being used for varsity activities, all box lockers were in the "*garage*", leaving the entire center room area available for practice.

This system had been in use in this school for several years when this writer saw it. The physical education instructor he interviewed stated his complete satisfaction with the installation.

Such an installation of course, would have to be either planned in original construction or when extensive remodeling is contemplated.

Caster Bar Assembly

Where we are working with existing rooms, another application of the "*Locker on Wheels*" principle can be considered.



"Caster bar assembly" - this illustrates two box locker units mounted back to back adopting the "Lockers on wheels" principle.

One locker manufacturer can provide a unit called a " *caster bar assembly.*" This is a heavy steel frame fitted with several large wheeled casters -- such casters have non-marking rolling surface or tires.

This *"truck"* or *"dolly"* carries two box locker units back to back. Box lockers can then be moved to unused areas when a locker room is being otherwise occupied.

The truck or caster bar assembly is not recommended for single unit use because the width of a single bank will not give sufficient stability to the moving section.

HOW TO ORDER YOUR ATHLETIC AND PHYSICAL EDUCATION LOCKERS

Let us assume we have studied the specifications and here ***let us make every effort to actually see a sample of each competing locker manufacturer's product.***

We have decided that brand "A" will meet our needs, as to size, quality, and percentage of open area. Please note I have not mentioned price, contrary to popular belief -- schools are not compelled to accept the *"low bid."* The requirement is the *"lowest **qualified** bid."*

Price should always be the ***last*** consideration. ***Remember -- the choice you are making will live with you for many years.*** Lockers are fixed equipment.

The School Equipment Dealer

Most manufacturers of lockers have representatives or dealers in your area. You will come to know the reliable ones -- their salesmen are usually well trained and know their products. Their assistance can be invaluable in planning and ordering equipment -- seek their help if they are available.

It sometimes happens that a manufacturer may not have a dealer in your area. Then contact the factory directly. You'll find their engineering and sales staff most cooperative. Often such factory offices will accept *"collect"* telephone calls from school officials inquiring about their products ***if time is of the essence.***

In cases where installations are of considerable size some manufacturers will send a factory man to assist you.

When a local dealer calls upon you and there is any reason to believe that he has too little knowledge of his product, verify any information you might question with the factory.

The factory or local representative can assist you with room measurement, locker arrangement and order preparation.

Order Preparation

If you are preparing your own order, usually the manufacturer the locker will require the following information:

1. The quantity of each size and type of locker you are ordering.

2. Spell out the locker dimensions carefully using the manufacturer's catalog method -- usually *"width x depth x height."* Use catalog page and model numbers or names if given.

3. State clearly what accessories or extras you may desire - sloping tops, closed bases, number plates, etc.

4. State the color in which you want your lockers finished. If two colors are involved state plainly which lockers are to have which color.

5. Specify the price including freight that you were quoted; also the delivery you were promised. Indicate routing by naming the railroad or truck line if you have a preference.

General Information

Don't ask manufacturers to make off-standard sizes. Most locker companies have a very wide selection of sizes -- one such producer lists 19 full length sizes, 18 double tier, and 21 box locker sizes -- fifty eight in all. These sizes are based upon popular demand.

Many locker producers will not even quote off-standard sizes.

Remember in order to provide lockers at competitive prices, they must be made by high production methods. For this reason the factory spends thousands of dollars on tooling and machinery. Such tooling and machinery is designed for his standard catalog listed sizes.

Even if a manufacturer agrees to a *"special"* size, you invite only higher costs -- sometimes 50% more -- and delayed delivery.

Locker manufacturers are always receptive to sound ideas and suggestions, but they will not change their methods in current production.

If an architect is employed, as in the case of new construction, it is his responsibility to see to it that the locker manufacturer has met his published specifications.

In conclusion we repeat: demand a showing of samples if possible; beware of the *"bob-tailed"* specification that does not spell out material used, construction and fastening methods employed; take into consideration the reputation of the manufacturer; see an installation if there is one in your area.

Room construction and layout concerns you and the architect. It may be well to suggest when new buildings or remodeling is planned, first determine the locker size and bench arrangement required; then dimension the room accordingly, giving consideration to aisle space, traffic conditions, the room's intended function, and possible expansion of facilities to accommodate the school's population growth.

MATERIAL GAUGES AND GLOSSARY OF TERMS

An *"opening"*, in the language of locker manufacturers, means a single locker or door.

A *"column"* indicates a locker width. A column may contain 1 locker, as in the case of full length *"dressing"* or varsity lockers; 2 lockers, as in the case of double tier units; 6 lockers, or any number depending on the tiers or ratio combination.

"Prime" coat is an under coating usually baked on to prepare a surface for the final finish coat.

"Dressing" locker is a full length or double tier locker provided in combination with physical education box lockers for a student's street clothes.

"Material gauge" indicates the thickness of sheet metal -- the smaller number indicating the *"thicker"* material. A list of gauges of which lockers are commonly made is listed below. These gauges are determined by the manufacturing steel rolling mills and are recognized by U. S. Bureau of Standards.

MANUFACTURERS STANDARD GAUGE FOR STEEL SHEETS

Gauge No.	Pounds per Square Foot	Equivalent Thickness in Inches
24	1.0000	.0239
22	1.25	.0299
20	1.50	.0359
18	2.00	.0478
16	2.50	.0598
14	3.125	.0747
13	3.75	.0897
11	5.00	.1196

It may be well to note that commercial practice in the rolling of steel sheets allows for certain uncontrollable variancies of steel thickness which are stated as so many thousandths of an inch plus or minus. If steel sheets are within these mill tolerances, the sheet is as specified.